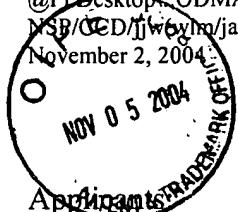


IPW



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall  
Application No.: 10/804,848 Group Art Unit: 1724  
Filed: March 19, 2004 Examiner: Not assigned  
Confirmation No.: 7504  
Title: METHOD FOR CURING DEFECTS IN THE FABRICATION OF A  
COMPOSITE GAS SEPARATION MODULE

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
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INFORMATION DISCLOSURE STATEMENT

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Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).
- ☐ under 37 CFR 1.97(c) together with either:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, and
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)
- ☐ under 37 CFR 1.97(I):  
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☒ Copies of the cited references (AL-AQ, AR-AZ and AR2) are enclosed.
- ☒ Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided.
- ☐ Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
- ☒ The listed references (AA4-AC4 and AL, AM and AP) were cited in the enclosed International Search Report in a counterpart foreign application.
- ☒ The "concise explanation" requirement (non-English references) for references AM and AQ under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
- ☐ the explanation provided in the Specification.
- ☒ submission of the enclosed International Search Report for reference AM.
- ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
- ☒ the enclosed English language abstract for reference AQ.

[ X ] Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_\_ U.S. Patent Application No. 10/804,846, by Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall, filed March 19, 2004, Docket No.: 1021.2005-001.

\_\_\_\_\_ U.S. Patent Application No. 10/804,847, by Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall, filed March 19, 2004, Docket No.: 1021.2006-001

\_\_\_\_\_ U.S. Patent Application No. 10/836,088, by Yi Hua Ma, Ivan P. Mardilovich and Erik E. Engwall, filed April 30, 2004, Docket No.: 1021.2007-001

\_\_\_\_\_  
Examiner

\_\_\_\_\_  
Date

[ X ] A copy of each above-cited application, including the current claims, is enclosed.

[ ] A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

[ ] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

[ ] Please charge Deposit Account 08-0380 in the amount of \$[ ]. A copy of this Statement is enclosed.

[X] Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By \_\_\_\_\_

  
Colin C. Durham

Registration No.: 52,843

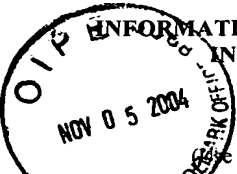
Telephone: (978) 341-0036

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Concord, MA 01742-9133

Dated:


11/2/04

PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 1021.2004-001		APPLICATION NO. 10/804,848	
 INFORMATION DISCLOSURE CITATION IN AN APPLICATION November 2, 2004 (Use several sheets if necessary)		FIRST NAMED INVENTOR Yi Hua Ma		FILING DATE March 19, 2004	
		EXAMINER Not assigned		CONFIRMATION NO. 7504	

## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AA	2,958,391	11-01-1960	deRosset
	AB	3,413,777	12-03-1968	Langley, <i>et al.</i>
	AC	3,428,476	02-18-1969	Langley, <i>et al.</i>
	AD	4,496,373	01-29-1985	Behr, <i>et al.</i>
	AE	4,589,891	05-20-1986	Iniotakis, <i>et al.</i>
	AF	5,049,167	09-17-1991	Castro, <i>et al.</i>
	AG	5,139,541	08-18-1992	Edlund
	AH	5,205,841	04-27-1993	Vaiman
	AI	5,215,729	06-01-1993	Buxbaum
	AJ	5,217,506	06-08-1993	Edlund, <i>et al.</i>
	AK	5,258,339	11-02-1993	Ma, <i>et al.</i>
	AA2	5,259,870	11-09-1993	Edlund
	AB2	5,358,553	10-25-1994	Najjar, <i>et al.</i>
	AC2	5,393,325	02-28-1995	Edlund
	AD2	5,451,386	09-19-1995	Collins, <i>et al.</i>
	AE2	5,449,848	09-12-1995	Itoh
	AF2	5,498,278	03-12-1996	Edlund
	AG2	5,614,001	03-25-1997	Kosaka, <i>et al.</i>
	AH2	5,652,020	07-29-1997	Collins, <i>et al.</i>
	AI2	5,738,708	04-14-1998	Peachey, <i>et al.</i>
	AJ2	5,782,959	07-21-1998	Yang, <i>et al.</i>
	AK2	5,782,960	06-21-1998	Ogawa, <i>et al.</i>
	AA3	5,904,754	05-18-1999	Juda, <i>et al.</i>
	AB3	6,152,987	11-28-2000	Ma, <i>et al.</i>
	AC3	6,152,995	11-28-2000	Edlund
	AD3	6,183,542	06-06-2001	Bossard

EXAMINER /	DATE CONSIDERED
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PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 1021.2004-001		APPLICATION NO. 10/804,848	
 INFORMATION DISCLOSURE CITATION IN AN APPLICATION November 2, 2004 (Use several sheets if necessary)		FIRST NAMED INVENTOR Yi Hua Ma		FILING DATE March 19, 2004	
		EXAMINER Not assigned		CONFIRMATION NO. 7504	

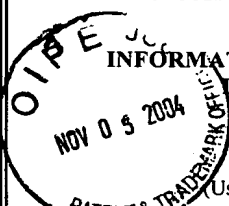
## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AE3	6,267,801	07-31-2001	Baake, <i>et al.</i>
	AF3	6,372,363	06-16-2002	Krueger
	AG3	6,379,524 B1	04-30-2002	Lee, <i>et al.</i>
	AH3	6,419,728	06-12-2002	Edlund
	AI3	6,475,268	11-05-2002	Thornton
	AJ3	6,547,858	04-15-2003	Edlund, <i>et al.</i>
	AK3	6,596,057	07-22-2003	Edlund, <i>et al.</i>
	AA4	4,056,373	11-01-1977	Rubin
	AB4	5,672,388	09-30-1997	McHenry, <i>et al.</i>
	AC4	2002/083829 A1	07-04-2002	Edlund, <i>et al.</i>
	AD4	2002/0164496 A1	11-07-2002	Saloka, <i>et al.</i>

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION YES NO	
	AL	EP 1 277 512 A	01-22-2003	Sumitomo Electric Industries		
	AM	JP 2000005580 A	11-01-2000	Nippon Metal Ind Co Ltd; Ishikawajima Harima Heavy Ind Co Ltd		X
	AN	JP 2000005580 A	11-01-2000	Nippon Metal Ind Co Ltd; Ishikawajima Harima Heavy Ind Co Ltd (Abstract)		
	AO	JP 2000005580 A	11-01-2000	Ishikawajima Harima Heavy Ind; Nippon Kinzoku Ind Co Ltd (Derwent Abstract doc. no. XP- 002291004)		
	AP	JP 2003290636 A	10-14-2003	NGK Insulators Ltd (Abstract)		X
	AQ	WO 03/011433 A1	02-13-2003	Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.		X

EXAMINER	DATE CONSIDERED
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PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b> November 2, 2004 (Use several sheets if necessary)	ATTORNEY DOCKET NO. 1021.2004-001	APPLICATION NO. 10/804,848	
	FIRST NAMED INVENTOR Yi Hua Ma		FILING DATE March 19, 2004
	EXAMINER Not assigned	CONFIRMATION NO. 7504	GROUP 1724

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	Gryaznov, V. M., "Metal Containing Membranes for the Production of Ultrapure Hydrogen and the Recovery of Hydrogen Isotopes," <i>Separation and Purification Methods (now Separation and Purification Reviews)</i> , 29(2):171-187 (2000).
AS	Gryaznov, V. M., <i>et al.</i> , "Preparation and catalysis over Palladium Composite Membranes," <i>Applied Catalysis A: General</i> , 96:15-23 (1993).
AT	Ma, Y. H., <i>et al.</i> , "Characterization of Intermetallic Diffusion Barrier and Alloy Formation for Pd/Cu and Pd/Ag Porous Stainless Steel Composite Membranes," <i>I &amp; EC Research</i> , 43:2936-2945 (2004).
AU	Ma, Y. H., <i>et al.</i> , "Thin Composite Palladium and Palladium/Alloy Membranes for Hydrogen Separation," <i>Ann. N.Y. Acad. Sci.</i> , 984:346 (2003).
AV	Mardilovich, I.P., <i>et al.</i> , "Dependence of Hydrogen Flux on The Pore Size and Plating Surface Topology of Asymmetric Pd-Porous Stainless Steel Membranes," <i>Desalination</i> , 144:85-89 (2002).
AW	Nam, S.-E., <i>et al.</i> , "Hydrogen Separation by Pd Alloy Composite Membranes," <i>J. Membrane Sci.</i> , 192:177-185 (2001).
AX	Ozaki, T., <i>et al.</i> , "Preparation of Palladium-coated V and V-15 Ni Membranes for Hydrogen Purification by Electroless Plating Technique," <i>Int. J. Hydrogen Energy</i> , 28:297 (2003).
AY	Roa, F., "Preparation and Characterization of Pd-Cu Composite Membranes for Hydrogen Separation," <i>Chem. Eng. J.</i> , 93:11 (2003).
AZ	Roa, F., <i>et al.</i> , "The Influence of Alloy Composition on The H <sub>2</sub> Flux of Composite Pd-Cu Membranes," <i>Desalination</i> , 147:411-416 (2002).
AR2	Shu, J., <i>et al.</i> , "Structurally Stable Pd-Ag Alloy Membranes: Introduction of a Diffusion Barrier," <i>Thin Solid Films</i> , 286:72-79 (1996).

EXAMINER	DATE CONSIDERED
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